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(71) Applicant (for all designated States except US): **MI-
CRON TECHNOLOGY INC.** [US/US]; 8000 South
Federal Way, Boise, ID 83716-9632 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **LOVETT, Simon, J.**
[US/US]; 13274 West Passage Court, Boise, ID 83713
(US).

(74) Agents: **ENG, Kimton** et al.; Dorsey & Whitney, LLP,
1420 Fifth Avenue, Suite 3400, Seattle, WA 98101 (US).

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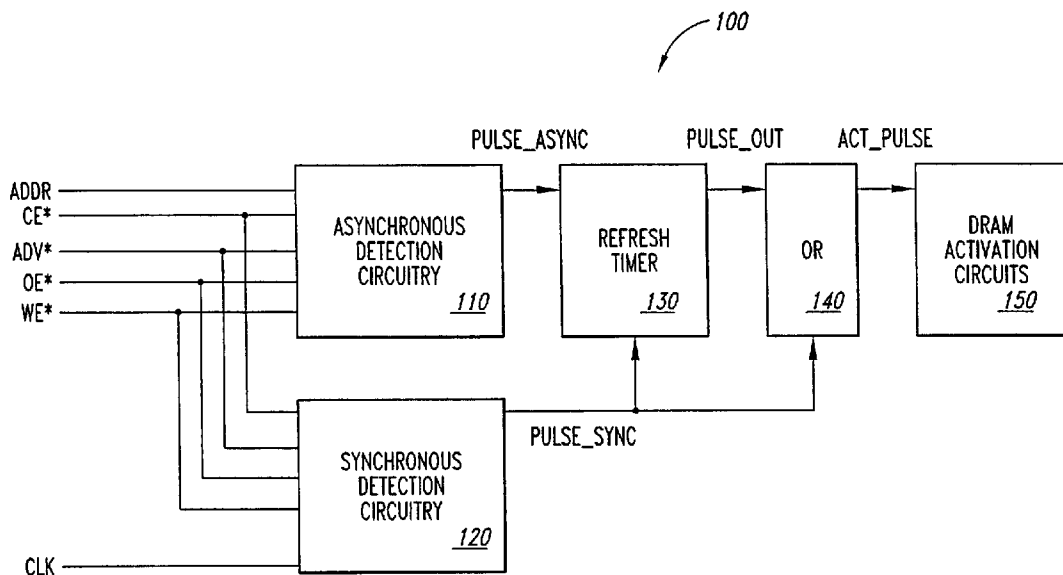
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(54) Title: DETECTION CIRCUIT FOR MIXED ASYNCHRONOUS AND SYNCHRONOUS MEMORY OPERATION



(57) **Abstract:** A memory access mode detection circuit and method for detecting and initiating memory access modes for a memory device. The memory access mode detection circuit receives the memory address signals, the control signals, and the clock signal and generates a first mode detection signal in response to receipt of the memory address signals or a first combination of control signals. An first mode initiation signal is generated a time delay subsequent to the detection signal to initiate the first mode memory access operation. In response to receipt of a second combination of control signals and an active clock signal, the memory access mode detection circuit further generates a second mode detection signal to initiate a second mode memory access operation and to suppress generation of the first mode detection signal, thereby canceling the first mode memory access operation.

WO 2004/070786 A3



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